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- ART. IX. — 1. *History of Civilization in England*. By HENRY THOMAS BUCKLE. Volume the Second. London: Parker, Son, and Brown. 1861. 8vo. pp. 601.
2. *History of Civilization in England*. By HENRY THOMAS BUCKLE. Volume II. From the Second London Edition. To which is added an Alphabetical Index. New York: D. Appleton & Co. 1861. 8vo. pp. 476.

MR. BUCKLE belongs to a peculiar class of English thinkers, — the Philosophical Radicals as they have been called, — some of whom have become distinguished in every generation for the last two centuries. Their great leader and prototype, who may be regarded as the founder of the school and the most original genius that has adorned it, was the philosopher of Malmesbury, Thomas Hobbes. His successors have adopted most of his opinions, because they inherited from him the peculiar traits of character in which those opinions had their origin. Obstinate, dogmatic, hard-headed, and impassive, they have manifested few qualities of heart or intellect which could win affection or sympathy; and it is perhaps a stronger reproach that they have never felt the want of either. The nature of their speculations has been determined by peculiarities of temperament and disposition more than by qualities of intellect. Cold in feeling, and averse to every manifestation of enthusiasm, they have uniformly adopted low and degrading views of human nature, and prided themselves on running counter to the opinions and shocking some of the dearest sentiments of their fellow-men. We lose the best safeguards of sound judgment when the errors of the head are no longer checked by the warm impulses of the heart. In theorizing upon human conduct, some of the most important data are left out of the account if men are regarded only as thinking machines, as uniformly selfish in their aims, and as guided only by a blind destiny to the accomplishment of results which they had never contemplated. The pride of individual intellect is not at all averse to such humiliating estimates of human nature in general. He who is fond of speculating upon the errors and weaknesses of his

species makes an unconscious exception of his own case, and prides himself on the perspicacity which detects the causes of self-delusion in others. Mackintosh, speaking of Hobbes, remarks, that "it might seem incredible, if it were not established by the experience of all ages, that those who differ most from the opinions of their fellow-men are most confident of the truth of their own. It commonly requires an overweening conceit of the superiority of a man's own judgment, to make him espouse very singular notions; and when he has once embraced them, they are endeared to him by the hostility of those whom he contemns as the prejudiced vulgar."

We do not undervalue the abilities of the leaders of this school, or deny that they have analyzed successfully some of the complex phenomena of mind, and made many important contributions to the philosophy of history and society. Hobbes himself is a striking example of a great intellect warped, but not dwarfed, by a perverse temper. Even Mr. Buckle has much of the genius for system which extends a few principles over a vast field of inquiry, unites the contribution of many sciences, and establishes a deceptive appearance of unity and method where we had looked only for incongruity and confusion. But his learning is multifarious and extensive, rather than exact or profound; he passes with great leaps over the difficult portions of his subject, and discards or mutilates the facts which do not suit his purpose, or will not fit into his theory. Arrogance is fed by imperfect knowledge; and one who is a smatterer in many sciences, without a perfect knowledge of any, often settles magisterially questions which still perplex and confound modest and competent inquirers. Mr. Buckle is not a great scholar, like Mr. Grote, nor has he the varied attainments and the genius for bold but judicious speculation which distinguish Mr. Mill. The very title of his work indicates rather overweening confidence in his own powers, than a clear understanding of the nature of his subject, or a definite purpose as to the end to be attained. The self-styled historian of civilization has not yet indicated what it is that constitutes civilization, or wherein a history of it differs from any other branch of historical

disquisition. With this imperfect conception of the nature of his undertaking, it is not surprising that he has already filled two thick volumes before reaching the threshold of his proper subject, and has even been driven to a frank confession that his original plan was too extensive, and that its execution consequently is impossible.

In truth, the title of the work, as far as it has proceeded, is a misnomer. It is not a history of civilization or of anything else, but the statement of a system of doctrine, borrowed in great part from the Positive Philosophy of Comte, and supported by a series of illustrations drawn at random from the history of all nations and all ages, and from the records of literature and science. Hence the work is eminently discursive and ill-digested, and might be prosecuted through a dozen more thick volumes, filled with the fruits of the author's various reading, but having no more connection with the history of England than with that of China, and affording not even a glimpse of the writer's theory respecting the nature of civilization. In point of mere style, the merits of the book are considerable, and even the rambling and desultory nature of its contents is a source of attractiveness and power. The language is clear, animated, and forcible, sometimes rising very nearly to eloquence, and marked with the earnestness of one who thoroughly believes the doctrine which he expounds. Even the cool dogmatism of Mr. Buckle's assertions, and his entire confidence in the truth of his opinions and the force of his arguments, are often as amusing as they are unreasonable. One who has no doubts to express, and no qualifications or exceptions to state, has a great advantage in point of liveliness of manner. Like his great master, Hobbes, he betrays a good deal of egotism also, a quality which adds much to the freshness and raciness of his style.

We have already intimated that there is no novelty in Mr. Buckle's doctrines, however new may be his manner of stating and defending them. He is simply a necessitarian and a sceptic; and he shows all the earnestness of a fanatic in preaching the gospel of fatalism and unbelief. In his view, man is a plant that grows and thinks, the form and place of his growth, and the products of his thought, being as little

dependent on his will or effort, as the bark, leaves, and fruit of a tree are on its own choice. All alike are subject to the "skyeey influences." Food, soil, climate,—these make up the man; and determine what he must be. They make up the whole man,—not merely his animal frame, but his life and soul, if he has any. If these are rich and generous, so will be the man, and his thoughts and actions. His moral nature is nothing; it has no lasting effect upon his character or conduct. And his spiritual nature is a mere fiction. The laws of matter and the laws of intellect,—these govern all, and shape our nature and destiny. And these laws are as permanent and uncontrollable as the laws of gravitation and chemical affinity. If we knew them perfectly, we could tell what the past must have been, and what the future will inevitably be; we could "look into the seeds of time, and see which grain would grow, and which would not." And we *can* learn them; from the statistics of what has been, we can prophesy what will be. As with individuals, so with communities and nations. These are but aggregates of individuals, and their history, also, is shaped by irreversible laws; and the system of averages, which eliminates small disturbing forces and abnormal instances, enables us to predict the result with greater ease and certainty in the case of these aggregates than in that of individuals. The history of human beings, the history of civilization, is like that of the solar and starry systems. When a Kepler, a Newton, and a Laplace shall arise to reduce the complexity of the observed and tabulated results to order, we shall see that all is subject to law; and knowing the law, we shall know all.

Evidently this is a sketch of a system of philosophy, and not a project of writing history. At the very beginning, Mr. Buckle has a theory to set forth, and a doctrine to establish; and he ransacks all history, literature, and science for proofs and illustrations of his preconceived opinion. Herein he violates the first principles of his own method; for he is a fanatical adherent of the Baconian system, and attributes most of the errors that have been committed in philosophy and science to the use of the deductive method, whereby reasoners assumed the maxims which they ought to have proved, and

proceeded from generals to particulars, not allowing "either themselves or others to sift the general propositions which were to cover and control the particular facts." Even Adam Smith's great work, the *Wealth of Nations*, which appears to most observers a very noble edifice, built up on the inductive system from a vast collection of facts, seems faulty to Mr. Buckle, as consisting too much of maxims previously assumed and evidence subsequently discovered, a great body of derivative principles being worked out in it by pure reasoning. Mr. Hume, also, both as a metaphysician and a historian, is gravely censured for proceeding in the inverse order from laws to facts, and reasoning deductively from preconceived doctrines. To the error thus committed by these two great philosophers, an error in which they were followed by all their Scotch contemporaries, Mr. Buckle attributes the narrow and enslaved condition of the human mind in Scotland, where, for three centuries, it has remained a prey to superstition and religious persecution, the bigotry and blind asceticism of the Kirk stifling all freedom of thought and action, and compelling the people to attribute events to supernatural causes, instead of tracing them to the immutable action of physical laws. Superstition and spiritual tyranny rest upon arbitrary assumptions and the deductive method; while physical science in general, and especially the science of history, find their advancement only in scepticism, the collection of facts, and the application of the principles of the inductive philosophy. Mr. Buckle professes to act upon these principles with the utmost rigor and precision; and he begins with an elaborate statement of the truths which his whole subsequent history is to prove.

The first of these assumptions upon which the whole philosophy of history is here made to rest, is the doctrine of Fatalism, or the necessity which governs all human actions, so that, when all the circumstances are known, the result can be told beforehand with as much certainty as we now predict the occurrence of an eclipse. We call this doctrine an assumption; for it is made in opposition to the clearest and most abundant evidence. It is a fact attested by the consciousness of every human being, whether learned or un-

learned, and at every hour of his existence, that, when two courses of action are presented to him, he is free to choose between them, and therefore has only himself to approve or blame for the consequences of that choice. In practice, this great truth is always acknowledged and acted upon, however the metaphysician may pretend to question it in his abstract speculation. Hence we all feel self-reproach or self-gratulation, after the consequences of our conduct have become manifest, because we *know* that we might have acted differently. It matters not that we cannot explain *how* man is free ; so neither can we tell *how* gravitation binds the earth to its orbit, or brings back to the ground a stone that has been thrown into the air. The first principle of the Positive Philosophy requires us to accept the facts as we find them, whether they are susceptible of explanation or not. And the fact of human freedom is as undeniable as any phenomenon in the physical world, for it rests upon the clear and dogmatic assertion of consciousness.

Mr. Buckle attempts to impeach the credibility of this testimony, on the ground, first, that many philosophers have denied, and justly too, that there is any independent or special faculty of consciousness, asserting that what bears that name is merely a general state or condition of mind. But the objection only shows that he is incapable of understanding the doctrine that he cites, and that his acquaintance with psychology is extremely superficial. Sir William Hamilton censures Reid for degrading consciousness into a special faculty, rightly maintaining that it is an attribute of all our faculties, — a general condition of the whole intellect. We cannot know, without knowing that we know ; we cannot feel, without knowing that we feel ; we cannot will, without knowing that we will ; and this self-recognition, this knowledge that the mind possesses of its own phenomena, whereby we discriminate our own mental states and appropriate them as our own, is what we call consciousness. We degrade the authority of consciousness, then, when we reduce it to a special faculty ; we exalt it, when we affirm that it is a universal condition of intelligence, an indispensable prerequisite of all knowledge. We cannot even doubt or deny, unless we are

conscious that we doubt or deny ; so that the sceptic, when he impeaches the testimony of consciousness, becomes a *felo de se*.

“Waiving this objection,” however, proceeds Mr. Buckle, “we may, in the second place, reply, that even if consciousness is a faculty, we have the testimony of all history to prove that it is extremely fallible.” And he proceeds to cite the changes of opinion, the various creeds, the different standards of truth, that have characterized different countries and ages, as instances of this fallibility. We are sorry to reply, that this objection betrays even greater ignorance than the former one. Consciousness does not affirm the validity, the truthfulness, of a judgment or opinion, but only the existence of that judgment as a present phenomenon of mind. Hence we are just as conscious of a wrong opinion as of a right one ; or, rather, we are conscious only of the belief itself, leaving it for subsequent inquiry and reflection to determine whether it is well or ill founded. We could make no progress in knowledge, we could never uproot old errors, if consciousness had not rightly informed us that we once entertained those errors. Mr. Buckle proceeds to ask, with great simplicity, “Are we not in certain circumstances conscious of the existence of spectres and phantoms,” though it is “generally admitted that such beings have no existence at all ?” Certainly not, we answer. We are conscious only of seeing indistinctly some white object in an imperfect light, and of believing it at the moment to be a spectre. And consciousness was right, as it always is ; we *did* see the object, and we *did believe* it to be a spectre : but examination a moment afterwards proved that *the belief* was wrong, for the supposed spectre was only an old white horse grazing in a churchyard. It is humiliating to be forced to explain so simple a distinction to any one but a school-boy. Mr. Buckle would lay the blame upon consciousness, if he should take a counterfeit coin, believing it to be a good one. Even a school-boy would tell him in that case, that not his consciousness, but his eyes and his judgment, were at fault.

The leading idea of Mr. Buckle’s book, “the magnificent idea,” as he calls it, is, “that everything which occurs is regulated by law, and that confusion and disorder are impos-

sible." In the application of this idea to the course of human affairs, and especially to the human will, all that he expects us to concede is, "that, when we perform an action, we perform it *in consequence* of some motive or motives; that those motives are the results of some antecedents"; and consequently, if we knew all the antecedents, and their mode or law of action, we could unerringly predict all that will follow. He subsequently defines free will to be "a cause of action residing in the mind, and exerting itself *independently of* motives." Here the whole gist of the doctrine and of the argument depends upon the words which we have italicized. Certainly no competent advocate of the freedom of volition will maintain that the determination of the will is "independent of" motives, in the sense of being made entirely without reference to them, just as if no motives existed. If it were so, then indeed human action would be wholly inconsequent and capricious, and man would be cursed with a freedom which he could not exercise except by resigning all the higher attributes of his nature. His freedom would be mere license,—the caprice of an irrational being, to whom no one course of action appears better than another. But it is not so; man is not only a free being, but a rational being; capable of preferences, and having a sense of right and wrong; endued with judgment and foresight. Because he is reasonable, his actions can generally be predicted by one who has a fair knowledge of his character and the special circumstances of the case; because he is free, he not infrequently breaks away from his former courses, renounces old habits, gives the lie to former resolutions, and acts even from a caprice or a whim. His circumstances have not changed, but *he* has changed. His former action had been "in consequence of" some leading motive, yet not in the sense of being enslaved to it, and necessarily yielding to its direction, just as a mass of brute matter inevitably follows a sufficient tractive force. Man does not thus yield, because man is not brute matter; because he is not dead, but living, and has an innate force, which can resist both external circumstances and internal temptation. Motives do not act upon his will, but he acts upon the motives,—considers them, weighs them against each

other, suspends all action in reference to them until they are thus fully weighed, and treats them always as subservient to his determination, never as controlling it,—as his guides, never as his masters. A weight suspended by a rope necessarily hangs always in the same direction, perpendicular to the horizon, unless drawn or pushed aside by some force external to itself. Because we recognize its essential inertness or incapacity of automatic action, we never see it deflected from a perpendicular without seeking some external cause for such deflexion. But a living man, suspended by his hands, can exert spontaneously the force that is in him to throw his body out of the line of gravitation ; and we know that the power thus exerted comes from within,—that the man moves himself. This, indeed, is an exertion of muscular power, and a physical antecedent can be found for it, in the nervous action which is needed to bring the muscles into play. But no such physical antecedent exists for the volition which brings out the nervous energy, and which is, in every sense of the word, spontaneous. We may assign a motive as the *reason* of such a volition, but not as its *cause* ; for causation implies power, and a reason or motive being a mere abstraction, a consideration present to the mind, it is absurd to consider it as exerting force. Force is an attribute of substance, not of thought. We attribute force to the will only in so far as the will is identified with the man himself. A motive is a desire, which is a passive state of mind ; and it is notorious that desires and volitions often run in opposite directions, so that we desire one thing and will another.

Like most of the modern speculatists who deny the freedom of the will, Mr. Buckle attempts to avoid some of the appalling consequences of Fatalism, by substituting for it what is called the doctrine of Necessity. But this is setting up a distinction without a difference. He asserts that “ the actions of men, *being determined solely by their antecedents*, must have a character of uniformity, that is to say, must, under precisely the same circumstances, always issue in precisely the same results.” This is plain Fatalism ; the circumstances being what they were, the man *could not* have acted otherwise ; then he is not responsible for that action. But among these

“antecedents” the Necessitarians admit not only the external circumstances by which the man is surrounded, but his own previous disposition and character, — the general bent of mind by which he inclines to one course of action rather than another. They immediately add, however, that this prevailing disposition or character is still determined *for* him and not *by* him, — that is, determined by previous circumstances, whose action upon his own mind he could not avoid. Wherein, then, consists his freedom? It matters not whether his action is determined by immediate or remote external events, if the determination in either case is absolute and necessary. If physical antecedents form the character, and then the character determines the volition, it is evidently the same thing as if those antecedents acted directly upon the will.

This distinction of the Necessitarians may be illustrated by that part of the process for the manufacture of shot, whereby the globules which are perfectly spherical are separated from those of irregular shape, by allowing all of them to roll down an inclined plane. The perfectly spherical shot roll in a straight line from the top to the bottom; and these may represent minds according to the Fatalist's theory, their course being determined exclusively by an external force, — that of gravitation. On the Necessitarian hypothesis, minds are like the imperfectly formed shot, whose course is determined not only by gravitation, but by their own lob-sidedness, which causes them, instead of moving straight onward, to waddle off to one side, and there stop. But their imperfect sphericity is determined for them, and not by them, by the previous action of the shot-maker in forming the globules. They govern themselves only in this wise: they have been so badly formed that they wander out of what would otherwise be the track of their destiny. Are they any the more free, or self-determined, for that?

For the support of his theory, Mr. Buckle does not depend much on psychological observation or metaphysical reasoning. He relies chiefly upon such statistical evidence as has been collected by M. Quetelet and other observers, which has disclosed great uniformity in human actions, even in some particulars where it was least expected. Thus, in a given popu-

lation, provided it be a very large one, the number of murders, of suicides, and of persons accused of various crimes, varies but little from year to year, and maintains about the same proportion to the whole number of the people. Even the various instruments with which these crimes are committed are employed in nearly the same degree of frequency. It is not pretended that the coincidence is accurate. The annual number of suicides in London, for the five years preceding 1850, varied from 213 to 266, or about twenty-five per cent. As larger aggregates are taken, however, the rate of variation is less. Thus, the average number for these five years is 242; and it is believed, though the returns are not given, that the corresponding average for the five years immediately preceding, or immediately subsequent, would not vary from this number perhaps more than ten per cent. The uniformity of the law, which is obvious enough when the numbers are very large, is obscured as they become less, owing to the presence, as it is argued, of small disturbing forces and minor laws, which render the case more complicated. It is only when these perturbations are eliminated, or reduced to insignificance by the multitude of cases, that the working of the great social law becomes manifest. Mr. Buckle's inference is, that human actions in the long run depend upon great laws affecting the general state of society, and not upon the peculiarities of individuals. Murder and suicide may seem to be infrequent and abnormal acts, contingent on accidental combinations of events and the idiosyncrasies of peculiar temperaments. But even here, statisticians demonstrate, if their observations have been broad enough, that great uniformity prevails, and the constant periodical repetition of the deed points to the steady operation of some uniform cause, which has not yet perhaps been traced or analyzed.

Are not such results, however, precisely what we ought to expect, on the supposition that man is not only free, but intelligent? Reason and foresight, under similar circumstances, lead to general similarity of action. The uniformity, it is true, is not as perfect as if it had been produced by the blind and unimpeded operation of some mechanical cause. But it is precisely this partial uniformity which the returns of the

statistician indicate. If all action were mechanical and necessary, there would be no need of uniting a great multitude of cases in order to reveal the law of that action; the results would be as uniform as the successive strokes of a steam-engine. The fingers of a hand-loom weaver do not give as regular action to the shuttle as it receives in the power-loom; and yet the motion is so uniform that, for hours together, the hand of the workman seems to be almost a portion of the machine. Tell that workman, however, that his action is necessary or uncontrollable, that he is not free to make the movement faster or slower, or to intermit it altogether, and he will laugh in your face. Where did M. Comte or his English disciple learn, that all phenomena which are "governed by will are therefore eminently variable and irregular"? They might as well have confounded the law of morals with the law of gravitation; for though the former is addressed to free and intelligent beings, and the latter describes only the action of brute atoms, the uniformity of the result may be nearly the same in the one case as in the other.

After all, the attempt to discover laws of nature through the rude approximations of statistics, employing numbers enormously large, and manipulating them by the method of averages and the doctrine of probabilities, is a procedure that can hardly be dignified with the name of science. A law of nature does not deserve its name if it be not precise and unerring. But an average is only a compensation of errors, and just the same average is struck whether the errors are large or small. Ten is the arithmetical mean, not only between nine and eleven, but between one and nineteen, and all the corresponding intermediate numbers. If a man fires a great number of shots at a target, the *average* result of his shooting will be precisely the same, whether he is a very poor marksman or a very good one. For as there is no reason why the deviations or errors should be in any one direction from the centre rather than any other, the mean of all these deviations will indicate precisely the same point, whether the circle including them all be six inches or six feet in radius. The figures cited by Mr. Buckle show, that the average proportion of suicides to the whole population of London, taking the mean of several years,

is about one to ten thousand. But in order that this fact may answer his purpose, which is to prove that a human being is a mere machine, moved only by antecedents that are rigorously subject to law, it must be interpreted to signify that there is a suicidal propensity in human nature equal to just one ten-thousandth part of the sum of all the impulses by which that nature is governed. Now, among one hundred thousand Londoners, taken at random, not a single suicide may occur in the course of a year; among another hundred thousand, taken in like manner, there may be, within the same time, one hundred cases. Neither of these facts, considered separately, is reconcilable with Mr. Buckle's law, while their mean result seems to him to substantiate that law. According to such reasoning, the mean result of two falsehoods is a truth. And in order to obtain his approximate result, rude as it is, he is obliged to class together events which are really very dissimilar. A suicide caused by failure in business is not the same thing with one produced by religious fanaticism, or another committed when the patient was raving mad. It is idle to suppose that one law of nature governs cases so unlike as those of Chatterton, Clive, Romilly, Castlereagh, Haydon, and Sadleir.

The doctrine of probabilities, an obscure reference to which is the basis of Mr. Buckle's reasoning, is a law which governs the expectations of men respecting a certain event, and not a law controlling the event itself. It is psychological, not physical. That is said to be *probable* or *likely*, which we *expect* to happen; but it is a vulgar error, and one into which Mr. Buckle has fallen, to believe that such *expectation*, however great, creates any physical impulse or tendency which will contribute to *make* it happen. If a hundred thousand balls are placed in an urn, and but one of them is black, it is physically just as possible that I should draw that one black ball at the first trial, as any other, though the probability of doing so is but one out of a hundred thousand. Nay, if each of these balls is numbered separately from one up to a hundred thousand, I *must* draw at the first trial some one number which was just as unlikely to come uppermost as the single black ball.

But we have dwelt too long upon Mr. Buckle's philosophy

of history, to the exclusion of the history itself, if the extraordinary selection of facts and disquisitions which he has brought together can be dignified with that name. His method, as we have seen, is to examine the history of what man has been, and what he has done, in order to ascertain the laws both of his being and of his action. He begins by assuming that there are two sets of laws to which man is subject, the laws of matter and the laws of mind. Where man is more powerful than nature, as he generally is in Europe, the latter class of laws prevail, or have the most influence in shaping his conduct and welfare; but where nature is the stronger, as it has been in all countries out of Europe, physical laws have the strongest influence.

This is one of the rash and hasty generalizations which are perfectly characteristic of our author. He has no caution or reserve as a speculatist; he never seeks for the exceptions to a principle, or the limitations of it, though a careful study of these generally leads to such a modified statement of the general maxim as alters its whole character and application. But if Mr. Buckle ever takes notice of an exception which is too salient to be winked out of sight, he wastes his strength on an attempt to explain it away. He mutilates the facts, that he may force them into accordance with his theory. The European has generally triumphed, and the Asiatic generally failed, in the contest with nature, not because the former had fewer physical obstacles to contend with, or fewer physical enervating influences to resist; but because the European was strong, and the Asiatic weak, in those moral and intellectual resources which always give the victory against any odds. Many large regions of Asia, and even of Africa, afford as favorable sites for civilization, so far as physical conditions are concerned, as the most favored districts of Europe, where the arts long since found a permanent home. But we should insult our readers by pausing to enumerate such obvious exceptions to the general principle thus dogmatically enounced. Our own position is, that a man is everywhere stronger than nature, except perhaps within the Arctic and Antarctic Circles, or on the Desert of Sahara; — meaning, of course, not isolated man, but men leagued in society, however rude, and thereby bringing to the

struggle the united strength of intellects and muscles banded together and aiding each other. If they ever succumb in the contest, their defeat is owing to their own vices and degeneracy, and not to physical influences too strong to be resisted. The Esquimaux and the Laplander can live even within the limits of the Arctic Circle; and the Icelanders, on the very borders of it, have kept up civilization for nearly a thousand years.

But let us follow Mr. Buckle to his own ground, — to a consideration of those physical influences which, as he would have us believe, everywhere but in Europe, — that is, over at least fourteen fifteenths of the earth's landed surface, — have either civilized man in spite of himself, or have successfully resisted his own best efforts to emerge from barbarism. The Necessitarian may well triumph if he can make out, for so large a portion of the globe, an overwhelming predominance of physical over mental laws in shaping human destiny. He does not weary us with a long catalogue of the natural agencies by which the welfare of the human race is most affected. He enumerates only four, — Climate, Soil, Food, and what he calls the "General Aspect of Nature," meaning thereby those imposing and awful features of natural scenery, which, by inflaming the imagination, generate superstition, and thus most effectually retard the progress of the human race. We object at once to this enumeration as both redundant and defective; — redundant, as embracing both Soil and Food, though the most important office of the former is to produce the latter, so that the two should be counted but as one; and defective, because, to say nothing of other omissions, it leaves out Geographical Position, which is, perhaps, the most important of them all. A more attentive consideration of Assyrian, Egyptian, Greek, Roman, and English civilization might possibly convince Mr. Buckle, that a situation along the banks of a great fertilizing and navigable river, or the possession of a long line of deeply indented sea-coast, is a circumstance highly favorable to the rise and continuance of civilization. We are not reconciled, moreover, to the exclusion of another important element, Inherited Qualities of Race, merely by the quotation of a magisterial remark by Mr. Mill, that "of all vulgar

modes of escaping from the consideration of the effect of social and moral influences on the human mind, the most vulgar is that of attributing the diversities of conduct and character to inherited natural differences." We hold that there is one more vulgar still ; and that is, to attribute a preponderant influence to Food and Climate. And though not placing so much stress as many naturalists have done on the peculiarities of the so-called Varieties of Mankind, we still think that there is a good deal in the history and the present condition of the Mongolian, the African, the American, and the Circassian races to sustain the belief, that these races are distinguished from one another by some important original and innate characteristics both of body and mind.

But faulty as Mr. Buckle's enumeration is, to analyze and develop the manner in which the habits and characters of different nations have been affected by peculiarities of their Climate, Food, Soil, and Scenery would have been an agreeable and instructive disquisition. Montesquieu began such an analysis, but left it very imperfect. No opponent of the doctrine of necessity denies that men adapt their habits to their circumstances, that their customs and tastes are flexible, and that even their characters are gradually modified by a change in their habits and pursuits. All this is an evidence rather of man's power than of his weakness. To adopt Lord Bacon's phrase, Man conquers Nature by obeying her laws. He is born a cosmopolite ; he can live everywhere, except, as we have said, in the regions of perpetual frost ; and habit can endear the most rugged and unpromising country to him, and can make its rigors minister to his comfort.

But this is too simple a view for Mr. Buckle to take. He must represent man, everywhere but in Europe, not as the helpmeet and often the master of Nature, but as her slave. And his description of the means and process, as well as of the results, of this subjugation, is most extraordinary. Some of the most controverted theories of English political economy, first suggested by the peculiar condition of the laboring classes in England and Ireland for the last hundred years, doubtful even in relation to them, and unquestionably false in their application to any other country and age, are here

brought forward as the keys of universal history, and as alone adequate to explain all the peculiarities of Hindoo and Egyptian character and civilization throughout forty centuries. Malthus's doctrine of population and Ricardo's theory of rent have been put to hard service by their authors, but were never before required to solve such problems as these. The bare attempt to make such use of them is an anachronism and a blunder. Who told Mr. Buckle that the population of Egypt under the Pharaohs was in the same state as the population of Ireland under Queen Victoria, or that the cause of the people's misery in either case was that they multiplied too fast, and not rather the pressure of institutions and laws which avowedly favored the unequal distribution of wealth? Ireland has never been so thickly peopled as Belgium, it has at least an equally fertile soil, and both these countries annually export large quantities of food. How idle is it, then, to attribute the suffering of the Irish or of the ancient Egyptians to their numbers having outrun their subsistence, instead of tracing the evil to the form of polity by which they were oppressed! The institution of Castes on the largest scale, an institution which has its origin and its support in political and religious considerations, has always been the characteristic feature of Hindoo and Egyptian civilization; and where the system of Caste is rigidly enforced, there is no freedom of competition in the dealings between man and man, and consequently no division of value into its three component elements. Even where African slavery continues to exist as a single Caste, the distinction between wages and profits disappears, the increase or diminution of the laboring class depends solely on the will of the master, which is regulated by calculations of profit, and the theories of Malthus and Ricardo, consequently, are as little applicable as they would be in a community like that of the Shakers, where all property is held in common and no intercourse is permitted between the sexes.

Mr. Buckle's eagerness to represent the character and conduct of men as determined by merely physical antecedents, and hence to solve the problems of history through the discoveries of modern physical science, has led him to make as rash use of chemistry and physiology in his work, as of political

economy. Perhaps a childish vanity of displaying the extent of his acquaintance with the various sciences has often unconsciously determined the character of his speculations. Thus, he sometimes laboriously constructs a complicated scientific explanation of a fact or phenomenon so simple in itself, that it is only darkened by any attempt to render it more intelligible. "The inhabitants of the polar regions," he tells us, "consume large quantities of whale oil and blubber; while within the tropics, the ordinary food consists almost entirely of fruit, rice, and other vegetables." The reason is obvious. Where no vegetables whatever are produced, as in the ice-bound regions of the North, the inhabitants live upon the only food that is within their reach; while the Hindoos find a vegetable diet the cheapest. But this is too simple a view of the matter to answer Mr. Buckle's purpose. He must lug in by the ears a long disquisition on some very questionable chemical speculations of Liebig, whereby the heat of the human body is traced to the use of highly carbonized food; and we are gravely informed that the oils contain six times as much carbon as the fruits. Animal food is more difficult to be had, and more of it is needed, in cold countries than in hot ones; therefore wages tend to be lower in tropical regions than in Northern Europe. Hence the lamentable paradox of the English school, that cheap and abundant food is an evil, after being falsely applied to account for the miseries of Ireland, is here brought forward to explain the origin and character of Asiatic civilization. The whole theory is confuted by experience in America, where food is cheaper and wages are higher than in Great Britain. Moreover, all classes in our Southern Slave States, countries of the orange and the sugar-cane, habitually use more animal food than the laboring Scotch, who live about thirty degrees nearer the North Pole. Mr. Buckle reasons thus: — A fat soil and a hot climate make cheap food; cheap food depresses wages; low wages cause an unequal distribution of wealth; and inequality of wealth produces an inequality of political power and social influence. But these inequalities exist in Russia in as great, if not a greater, degree than in Southern Asia; and Russia unfortunately is a very cold country, where the need of animal food is very pressing. In truth,

experience and common sense should teach Mr. Buckle to invert his order of cause and effect, and reason the other way. In dynastic changes and military usurpations he should find the origin of despotic power; to despotic and aristocratic institutions he should trace the inequality of wealth; and the great body of poverty thus created keeps wages depressed, and reduces the laborer to the poorest possible diet, even where nature's bounty makes rich food abundant and cheap. But as such reasoning would prove man to be more powerful than nature, or the human will to be independent of physical antecedents, it does not suit our author's purpose.

We must not dwell longer on the details of this gloomy and scandalous theory, and can only point out in general terms the grand fallacy of the argument by which it is supported. Take any scheme of social philosophy, any theory of human life and character, however extravagant, and allow its author to range over the history of all countries and ages for facts and illustrations which may seem to harmonize with it, while he is not expected to notice any that contradict it, nor to enter into any detailed or consecutive narrative, and it will be strange indeed if it is not made to appear ingenious and plausible, and if careless readers do not accept it as sound and able speculation. In this Introduction to his great work, an Introduction which already fills two bulky volumes, Mr. Buckle revels in the large results of his desultory studies and omnivorous reading. He has brought together a vast magazine of the scraps of learning, and weaves them into any fabric that may suit his fancy, rather than his judgment. He is not pinned down to any method, he is not confined to any principle of selection. He has put under contribution all science, all philosophy, and all history, at liberty to cull what he chose, and careful not to see anything which would obstruct his progress, suggest difficulties, or mar in any way the harmony of his fabric. In the same chapter, and even the same paragraph, he glances from India to Peru, from the polar regions to Arabia, from the history of the tenth century before Christ to that of the debates on the Reform Bill and the Paper Duty. The wealth and civilization of ancient Peru are attributed to the lavish bounty of nature, the fact being conveniently for-

gotten, that over a large portion of that country rain never falls; while California, better watered than Peru, is described as a parched and sterile region, in order that the lack of moisture and the consequent dearness of food may explain the uncivilized state of its aboriginal inhabitants. Brazil, again, where all the resources of natural wealth exist in measureless profusion, never became civilized, as this author tells us, precisely on account of the abundance of her riches. Nature is too potent for man; her rivers and forests are too grand; vegetation is too luxuriant; animal life is too varied and abundant; "enormous meadows, reeking with heat and moisture," afford nourishment to too many herds of wild cattle. Why, according to Mr. Buckle's theory, Brazil, before it was visited by Europeans, ought to have been the most civilized country in the world. If the blessings of nature in respect of climate, soil, and food civilized India, Egypt, and Peru, a still greater measure of those blessings ought to have done as much, or more, for ancient Brazil. Mr. Buckle forgets, also, that the central and southern portions of the United States, including nearly the whole of the magnificent valley of the Mississippi, present just that assemblage of physical conditions to which, as he maintains, the superior civilization of Europe herself owes its origin. If the qualities of race count for nothing, but merely physical agencies do all, and if, consequently, all refinement and progress must be of home origin, created and nourished by the natural influences of the region within which they exist, then Hendrik Hudson, John Smith, and William Penn ought to have found here a more advanced civilization than that which they brought with them. Besides, as the great physical features of a country remain unchanged through all time, all that depends upon them ought to be equally permanent and irreversible. The climate, soil, and scenery of Egypt and India are the same now that they were under Sesostrius or Porus; but the semi-barbarous condition of their native inhabitants exhibits no trace of the arts, culture, and refinement which distinguished their ancestors thousands of years ago. Even the languages have perished which contain the records of their ancient civilization, except so far as they have been recovered by the inge-

nuity and learning of European scholars. And what was the condition of Britain, Gaul, and Germany, down to at least as late a period as the fall of the Roman empire in the West? They were surrounded by the same physical agencies then as now; but the light of civilization had hardly yet dawned upon them.

A discovery of the laws of European history being resolved by Mr. Buckle primarily into a study of the laws of the human mind, and his method of psychological study consisting merely in the observation of phenomena and in the application to them of the principles of all inductive science, we have the first grand result of his investigations in the statement, that moral truths are stationary, while intellectual truths alone are progressive. Hence, he concludes, we are to look for the advancement of the race to the development of the intellect, and not at all to the cultivation of the moral feelings. The progress of society must be measured "by the amount and success of their intellectual activity." No discoveries are possible in ethics; the great body of moral truths remains unchanged from one age to another, and all nations instinctively recognize them. Whatever changes take place in the opinions of men, or whatever improvements are effected in their condition, cannot be attributed, therefore, to moral influences, but must be due to the discoveries of the intellect. To adopt our author's own strong and unqualified language, "the growth of European civilization is *solely* due to the progress of knowledge, and the progress of knowledge depends on the number of truths which the human intellect discovers, and on the extent to which they are diffused."

There is a confusion of thought here, and when this is dissipated, Mr. Buckle's proposition is resolved either into a barren truism or a transparent falsehood. Even if discoveries were possible in the province of morals, it would be the business of the intellect to make them. A man cannot see except by the use of his eyes, nor investigate truth except by an intellectual process. The function of conscience, or the moral nature of man, is entirely different; it is not to separate truth from error, but to regulate conduct. Its office is monition, not discovery; it is not so much a guide as a master, for it

speaks, not to instruct, but to command. It is a mere truism, then, to say, that its laws are the same yesterday, to-day, and forever, and that they admit neither of enlargement nor repeal.

But this is not Mr. Buckle's meaning. He intends to say, that the increased happiness of a community and its progress in civilization depend altogether upon the cultivation of the intellect, and not at all upon the observance of morality; — which is a palpable untruth, contradicted by all history. “The two oldest, greatest, most inveterate, and most widely spread evils which have ever been known,” he tells us, are religious persecution and war; these have been constantly diminishing; and “their diminution has been effected, *not at all by moral feelings, nor by moral teachings, but solely by the activity of the human intellect, and by the inventions and discoveries* which, in a long course of successive ages, man has been able to make.” And as in respect to these two great evils, so also in inferior matters, the same process has been followed, and the same law holds. “The actions of bad men produce only temporary evil, the actions of good men only temporary good; and eventually the good and the evil *altogether subside*.” They offset and neutralize each other, leaving the progress of the human race to be effected solely by the discoveries of genius, “which are immortal and never leave us.” He pledges himself to prove, in the course of his work, that “the progress Europe has made from barbarism to civilization is *entirely* due to its intellectual activity”; and that the occasional disturbances produced by moral agencies “are but aberrations, which, if we compare long periods of time, balance each other, and thus, in the total amount, *entirely disappear*.”

And as morality has effected nothing for the human race, so religion has done worse; it has been a positive curse, the greatest bane of mankind. Religious persecution, as has been stated, has produced more affliction, has done more harm, has been a greater obstruction to progress, than any other evil, — than all other evils united. This is the thesis which nearly the whole of Mr. Buckle's second volume, and a large portion of his first, are designed to prove. The rise of scepticism, in

his opinion, is the first condition for the beginning of progress, for any improvement in science, art, civilization, or the general condition of mankind; and religious intolerance is the great evil with which mankind have had to contend. An abstract of the history of Spain and Scotland, or rather a copious gleanings of facts from that history, partial and one-sided in the extreme, fills the second volume, the sole object being to prove that superstition is the greatest of all errors, and religious persecution the most fearful scourge, that mankind have ever known. And the evil of this intolerance, we are specially taught, is only enhanced by the purity of intention and sincerity of belief of those who manifest it. In a moral point of view, the motives of religious persecutors are unimpeachable. "Diminish the sincerity, and you will diminish the persecution; in other words, by weakening the virtue you may check the evil." Thus a double point is made against both morality and religion; they are two poisons which enhance and stimulate each other. Fortunately, the intellectual progress of the race is fast conquering both evils, or leaving them behind in the great march of civilization. Discoveries and inventions, chemistry and physiology, political economy and improved means of locomotion, gunpowder, the steam-engine, and the magnetic telegraph, — these are at once the agents and the results of human progress; these wage unceasing war against credulity and intolerance, and ultimately triumph over them. The discoveries of great men contain those eternal truths which "outlive the struggles of rival creeds, and witness the decay of successive religions. All these have their different measures and their different standards; one set of opinions for one age, another set for another. They pass away like a dream; they are as the fabric of a vision, which leaves not a rack behind."

And these are the results of Mr. Buckle's study of the history of civilization! These are the conclusions to which he has been led by studying the laws of the human mind, not according to the usual method of the psychologist, the moralist, and the theist, through the testimony of consciousness, — "not simply as they appear in the mind of the individual observer, but as they appear in the actions of mankind at

large"; — that is, as they appear in the evidence of statistics, and other recorded facts of history and science! This improved method is not original with him; it is the method of Comte, Mill, and other Positivists and radical philosophers. It is the necessary procedure of those who overlook or condemn the testimony of consciousness, deny the freedom of the will, and extend the dominion of physical laws to the entire exclusion of the supernatural or providential element in human affairs. We would do no injustice to the present advocate of these doctrines. As nearly as our limits would permit, we have stated his conclusions in his own language; and we would refer any who may doubt the correctness of the outline to his own fuller statement of them in the fourth chapter of his first volume.

Not without reason, then, have we described him as a pupil and imitator of Hobbes, though the philosopher of Malmesbury was the unblushing advocate of despotism in politics, as well as of materialism in philosophy, and selfishness in morals, while Mr. Buckle fiercely asserts the rights of individuals against any interference or any claim of authority by church or state. But he manifests the same arrogant contempt as his great predecessor for the best sympathies and feelings of mankind. Extremes meet; the absolutist and the radical start from the same premises, move by a common impulse, and arrive at what are essentially the same conclusions. Both show the same inclination for paradox, the same disposition to fly in the face of the dearest convictions of their fellow-men, and both adopt the same brutal tone of expression towards those whose feelings they outrage. We have no scruples about drawing this parallel, as Mr. Buckle will doubtless deem himself honored by the comparison. But we would remind him that notoriety is not fame, that recklessness is no proof of courage, and that he who abjures caution and sobriety of manner, and even a decent regard for the feelings of his opponents, casts away the best safeguards of successful investigation, and does his utmost to discredit his own conclusions.

One argument which he adduces in favor of the doctrine that the moral feelings of mankind do not, in the long run, aid their progress or improve their condition, is too characteristic

of the writer and of his method to escape notice. It is founded on the assertion of the statisticians already alluded to, that the annual amount of crime in a country is reproduced, year after year, with considerable uniformity. Then the moral feelings of an individual, he argues, may exert great influence on the amount of his own transgressions, but will not at all diminish the aggregate of crime in the community to which he belongs. His motives for well-doing, then, must be selfish ; he may lessen his own culpability, but he will not benefit society, which must still contend against as much misconduct as ever. Even though we may be conscious, therefore, that moral principles regulate our own conduct, “we have incontrovertible proof that they produce not the least effect on mankind in the aggregate, or even on men in very large masses.”

The fallacy here is so transparent, that we marvel both at its escaping detection in itself, and at its failing to disclose the erroneousness, and even the absurdity, of the method of reasoning which led to it. Society is nothing but an aggregate of individuals, and the whole amount of crime registered in a year is but the sum total of the separate offences committed within that period. He who overcomes temptation but in a single instance lessens that sum by unity ; and this is a positive gain to the community, and a gain which is greater or less in proportion to the heinousness of the offence in question, and not in proportion to the number of other crimes with which it is compared. Mr. Buckle’s mode of reducing the magnitude of this gain to insignificance, through “the precaution of studying social phenomena for a period sufficiently long and on a scale sufficiently great,” — that is, by counting it only as one case out of a thousand, or one out of a million, — is precisely akin to the folly of a child, who should attempt to lessen his estimate of the size of an obstacle by regarding it from so great a distance that the mountain would seem to the eye no larger than a mole-hill. It is *his estimate* of the magnitude, and not the magnitude itself, which he lessens by this ingenious folly, this attempt at self-deception. The statistical method, as we have already hinted, is a means, not of avoiding, but of hiding errors, by

setting them off one against another. It is a compensation of blunders.

But the great fallacy which underlies the whole of Mr. Buckle's doctrine and argument arises from the vagueness and uncertainty in his use of the word *civilization*. It is with good reason that he has omitted, as we have already mentioned, to define what that is of which he has attempted to write the history. Had he even attempted such a definition, he must have recognized the absurdity of his theory. And what an omission! It is as if the author of a new system of logic, or a new scheme of philosophy, should execute half of his work before settling in his own mind, or informing his readers, what logic or philosophy is. His edifice is far advanced towards completion, but he has forgotten to lay its foundation. The only word which he uses as synonymous with Civilization is Progress, a term which is still more loose and uncertain in its signification. He means, though he does not directly say so, the Progress of Knowledge; and if any one should attempt, by a large induction from many passages of his work, to ascertain what Civilization, according to Mr. Buckle, means, the answer would undoubtedly be the Progress and Diffusion of Knowledge. This is the assumption on which his whole theory is built; and his parallel assumption is, that the advancement of knowledge constitutes, and is the measure of, human power and happiness.

Thus understood, his paradoxical assertion, that the cultivation of the intellect, and not of the conscience, is the source and root of civilization, becomes a mere truism, even an identical proposition. Certainly, intellect is the only means of the advancement of knowledge, and conscience has nothing to do with it, except indirectly. A more harmless platitude was never uttered. But in this sense it is not true that civilization is the same thing as happiness, or the only means of securing happiness. For happiness depends on the due regulation of the passions and the conduct; and this is the province of morality and religion, the cultivation of the intellect having, at the best, but a remote and indirect agency in the work. The sorrowful confession of many a philosopher and man of science, the history of many a genius, — nay, the

experience of half mankind, — attests, that the increase of knowledge is not necessarily the increase of happiness.

We now know how to construe our author's oft repeated assertions, that "civilization is regulated by the accumulation and diffusion of knowledge," and that "the growth of European civilization is solely due to the progress of knowledge." He is really identifying the two elements, which he here places in the nominal relation of cause and effect; he means that civilization is the progress of knowledge. This is merely an unauthorized use of language, which constantly leads the reader astray, and hides the author's vagueness of meaning and unsoundness of argument. We can rightly appreciate the doctrine and the reasoning only by defining at the outset what people generally mean by Civilization.

We say, then, that the Civilization of a community means its happiness, *so far as this is secured by the prevalence of morality, intelligence, and refinement of taste, and by the general enjoyment of the products of the fine and the useful arts.* For the correctness of this definition, we can only appeal to the dictionary and the general usage of the best writers.

Taking this signification of the word along with us, Mr. Buckle's doctrine ceases to be even plausible; it is simply absurd. The highest degree of civilization ever attained by the ancients — and it was a degree which, in many respects, the moderns have never equalled — was that of Athens under Pericles. But what did the *knowledge* even of the wisest Athenians amount to? And of what discoveries or inventions could they boast? It is little to say, that a pupil in one of our high schools knows vastly more than the best of them did. In their times, not one of the physical sciences had begun to unroll the secrets of nature. They knew a little geometry, a very little astronomy and natural history; as to their acquisitions or speculations in logic, rhetoric, ethics, and metaphysics, Mr. Buckle will hardly dignify these with the name of science. But why need we state the case in our own language, when we can borrow the weighty words of one who was the greatest scholar, and one of the greatest thinkers, of the present century?

"Every *learner* in science," says Sir William Hamilton, "is now familiar with more truths than Aristotle or Plato ever dreamt of knowing; yet, compared with the Stagirite or the Athenian, how few, even of the *masters* of modern science, rank higher than intellectual barbarians! Ancient Greece and modern Europe prove, indeed, that 'the march of intellect' is no inseparable concomitant of 'the march of science'; that the cultivation of the individual is not to be rashly confounded with the progress of the species."

The brightest period in the history of Roman civilization, the age of Augustus, ranks much below the age of Pericles, simply because morality and philosophy had declined, both in the schools and in their influence on society. In ethics and philosophy, Cicero was but a feeble copyist and translator of his Greek teachers, and his is the only name that deserves mention. The fire of patriotism had burnt out, and the standard of morality, both in public and private life, had fallen so low as to threaten society itself, not so much with dissolution as with putrescence. Under the second and third Emperors, at least, if not under the first, the only motto for those who could boast either of patrician blood or of mental culture seemed to be, "Let us eat and drink, for to-morrow we die." Among the upper and middle classes, even the love of offspring had been overpowered by the love of vice. Population rapidly declined. Patricians disowned or gave away their children, if they had any, willed their property to strangers, and, after leading a life of extreme licentiousness and effeminacy, showed some remains of the old Roman spirit only in the cheerfulness and alacrity with which they opened their veins, or took poison, after they had been denounced to the Emperor. Satire was the only branch of poetry which the Romans may be said to have created, and in which they really excelled; for satire alone had a legitimate theme, and abundant materials for its work. In Horace and Juvenal, the laughing and the indignant satirist, we find such pictures as literature nowhere else affords of a civilization which had become thoroughly corrupt and debased,—which had really ceased to be civilization, as it had rotted in its own vices. There was some reaction under Trajan and the Antonines, caused partly by the vigorous rule

and stoical morality of these Emperors, and partly by the influence of Christianity, which had begun to pervade the middle and lower classes, and was working from them upward. But the reaction was short-lived, as no extraneous causes could check a decline that had already become so marked and proceeded so far. Christianity found its proper work in taming the ferocity and modelling the characters of the rude barbarians from the North, who trampled out the last vestiges of Roman power and civilization.

Yet, from Pericles to Nero, it cannot be denied that mere knowledge had increased. Archimedes and Hipparchus had made important additions to physical science. The Julian reformation of the calendar was a considerable step in advance. There were writers of some note in natural history, agriculture, and architecture. According to Mr. Buckle's mode of judging, it cannot be denied that the world had made *progress*,—that Pliny and Seneca *knew* more than Plato or Aristotle. We have learned from Herculaneum and Pompeii, that the Romans had made great advances in the useful arts, for their houses were furnished with many conveniences and luxuries which the Athenians in their palmiest days had never dreamed of. But humanity had little reason to boast itself of this “march of science”; for not even Mr. Buckle will dare to deny, in this instance at least, that the advancement of knowledge was accompanied by a woful decline of every element that constitutes true civilization.

Coming down to modern times, we find still more abundant means of refuting the paradoxical and debasing doctrine of this book. So far from its being true, “that the growth of European civilization is solely due to the progress of knowledge, and that the progress of knowledge depends on the number of truths which the human intellect discovers, and on the extent to which they are diffused,” while morality and religion are either of no account or positively injurious,—so far, we say, is this humiliating assertion from the truth, that all history proves precisely the reverse. The great agents and tokens of modern civilization are those institutions of beneficence, those reforms of old abuses, vices, and crimes, and that amelioration of legal codes and private man-

ners, which have added most to the happiness of the human race, and which are directly and undeniably traceable to the influence of morality and religion; while the mere discovery of new truths, the enlarged boundaries of science, and the triumphs of intellect, have had little or no share in producing them. This is our thesis, and it has at least this advantage over Mr. Buckle's, that it is one which we are not ashamed to avow and defend; while he is driven to the humiliating acknowledgment, that his "conclusions are no doubt very unpalatable," that they are even "peculiarly offensive," and the only apology he can offer is the cold-blooded one, that "the unpleasantness of a statement is hardly to be considered a proof of its falsity."

We say, then, that hospitals, public schools, and almshouses,—the support of the poor and the instruction of the ignorant,—the amelioration of prisons, the abolition of the slave-trade, the humane treatment of prisoners of war, and the growing disuse of brutal sports, are the chief features of difference between barbarous and civilized nations at the present day; and that for all of them we are indebted to the increased cultivation of the moral feelings, to the greater activity of conscience, and—we will not be deterred by Mr. Buckle's sneers from adding—to pulpits, priests, and sermons. If he denies this assertion, let him point out any nation upon earth before the Christian era, or any barbarous or unconverted nation of the present day, in which such institutions have been erected, such efforts made, and such improvements effected by the spontaneous concurrence of government and people. If any instances can be mentioned, and they must be few and weak, they are found probably among the Mohammedans, the better part of whose morality and humanity, it will be generally acknowledged, is an after-growth and a plagiarism from the Jewish or Christian Scriptures. Modern civilization is distinguished from ancient chiefly by an increased tenderness for human life, and an increased anxiety to relieve human suffering. It is not that men did not before know how to spare or to pity. It is not that the progress of discovery and invention has now first enabled us, or taught us how, to be merciful and charitable.

In earlier times, power and intellect were not wanting, but will; *the attempt* was never made. We would not be unjust to Science; she has done much as the handmaid of morality and religion. She has rendered asylums for the poor, the sick, the maimed, the blind, the deaf and dumb, more efficient; but she never originated them. She has been often the hired, often the volunteer, servant of charity. But in all her proper and peculiar work, no one will deny that the pride of intellect and the desire of reputation have been added to the love of knowledge as her motives.

We claim all these triumphs of modern civilization for morality, first stimulated and rendered active and efficient — Mr. Buckle will not allow us to say first *discovered* — by the Christian religion. We claim them for the only gospel that was specially, and by its Founder, “preached to the poor,” whose first precept is, “Love your enemies,” whose first benedictions fell on those “that mourn,” on “the merciful,” and “the pure in heart,” and whose first caution is, that “when thou doest alms, let not thy left hand know what thy right hand doeth.” Mr. Buckle says, that these and similar dogmas “have been known for thousands of years,” and “that the system of morals propounded in the New Testament contained no maxim which had not been previously enunciated, and that some of the most beautiful passages in the Apostolic writings are quotations from Pagan authors, is well known to every scholar.” As the single brief citation, a part of one line, which St. Paul made from Aratus in his speech at Mars Hill, is a very insufficient foundation for this last broad assertion, we are compelled to believe that our author has made some discoveries in the Apostolic writings which are not “known to every scholar,” or indeed to any one except himself. And against the former statement we place the authority of one of the greatest metaphysicians of modern times, and one who was certainly not so much a friend as an opponent of the Christian religion. In his “Religion within the Limits of mere Reason,” Kant cites these and other moral precepts, taken chiefly from the Sermon on the Mount, “as proofs of the divine mission” of Him who uttered them, and of “the honor due to him as

founder of *the first* true church.”* It is idle to say that isolated hints of one or more of them, taken separately, can be found here and there, after great search, in the writings of some Pagan moralists. He who first announced them collectively, in one brief discourse, not as the fruits of ethical disquisition, but as a message from God to man, is their true author, their original promulgator and voucher. Let him who doubts or denies this assertion point to the first heathen nation that has reduced them to practice in such institutions and endeavors as we have mentioned, or to the first Christian nation that has not done this.

We deny that the mere advancement of science, the discovery of new facts and truths, whether physical or purely speculative, however gratifying to the pride of intellect and honorable to the genius of the discoverer, has had any but an indirect and comparatively feeble influence on the progress of civilization. Such discoveries are the effects, not the causes, of that “prevalence of morality, intelligence, and refinement of taste,” in which, as we have said, true civilization consists. Now, the only two of these elements which can come into question here, intelligence and refinement, whether of an individual or a nation, are not increased or heightened in proportion to the number of truths known or facts discovered. Not to recur to the instance already given, of the Athenians in their palmiest days as compared with any nation or age for fifteen centuries after the glory of Athens had departed, we will take what is, so far as discovery is concerned, the brightest epoch of modern times. This is unquestionably the age of Newton and Leibnitz, of Boyle, Hooke, Huyghens, Von Guericke, Cassini, Pascal, Wren, and a crowd of other illustrious names. Designated by its principal sovereigns, it was the age of Charles II., Louis XIV., and Leopold I. But no Englishman or German will refer with pride to the history of his country during this period, or will maintain that the general civilization of his people was then either at its height, or making more rapid progress than it had done for several generations before. Generally, it was an age of licentious manners

* *Die Religion innerhalb der Grenzen der blossen Vernunft.* Kant's *Werke*, Ed. Rosenkranz. Band X. S. 190.

and feeble public spirit, when little was done for popular education, or to elevate the condition of the laboring classes,—when courts were corrupt, and the people enslaved. France, it is true, was then in her Augustan age, but her glory consisted in her literature, not in her science. Mr. Buckle even maintains that her literary splendor in those times was “the work of the great generation” that had just passed away; that “the absence in France, during this period, not only of great discoveries, but also of mere practical ingenuity, is certainly very striking”; and, generally, that “the age of Louis XIV. was an age of decay: it was an age of misery, intolerance, and oppression; it was an age of bondage, of ignominy, of intolerance.” All this is coarsely exaggerated, and marked by our author’s usual recklessness of statement and brutality of expression. The French of that day certainly showed great refinement of taste and elegance of culture, and, amidst much tinsel splendor, they achieved more than any other generation of their countrymen in literature and art. But their triumphs were not those of the intellect, in the narrower sense in which Mr. Buckle uses that term; the physical science of Paris at that time was an exotic, not a native growth. The only eminent astronomers patronized by Louis XIV. were foreigners; and France was full half a century behind other nations of Europe in accepting the Newtonian theory. The general result is, that the people of the most splendid civilization made the fewest discoveries; while with the Germans, English, and Dutch, the case was precisely the reverse. So, also, the richest and most brilliant civilization of Europe, in the fifteenth and sixteenth centuries, was that of Rome, Florence, and the other cities of Italy; and this, again, manifested itself chiefly in literature and art, and hardly at all in scientific inquiry, or the promulgation of new truths.

In fact, great achievements in science, like those of Galileo, Newton, Laplace, and Cuvier, do not early or easily enter into the mass of familiar truths on which common minds are fed, and by which the broad civilization of a people or an age is affected. They dignify, but they do not constitute, that civilization, nor give rise to it. They remain for a long time, if not forever, like the fruits of the more refined scholarship and the pro-

cesses of the higher mathematics, the exclusive property of a comparatively small body of the learned. Art and literature, morality and religion, are far more popular and diffusive in their effects; they are cosmopolitan and universal, not confined to any country or age, and not by any means limited in their influence to the particular classes by which they are specially professed. They affect the whole atmosphere in which all the people live and act. They color and shape the national life and character in every vein and lineament. Wealth, public spirit, and popular education — both that which is dispensed in schools, and that which is constantly imbibed from the whole environment of institutions and circumstances in which a people are placed — are the agencies which foster and diffuse these national blessings. Civilization is not shut up in laboratories, scientific academies, or museums of natural history, and does not issue from them; on the contrary, the most splendid civilization may exist where these means and appliances of mere physical research are entirely wanting.

But it may be said that invention, though not discovery, is a most important agency in the accumulation of wealth, and in bringing about that general enjoyment of the products of the fine and the useful arts, which we have admitted to be one great constituent of civilization. So it is; but this admission makes nothing for Mr. Buckle's purpose, unless he can prove that invention is the natural and ordinary result of discovery. He here falls into the common error, of which even scientific minds are not yet generally disabused. We altogether deny that either the great inventions which have turned the course of human affairs, or the minor ones which have added so much to our comforts and luxuries, and widened the enjoyment of them, are to be ranked among the gifts of science, or that they have been made generally by scientific men. As striking instances of the former class, take gunpowder, the mariner's compass, and the printing-press; "for these three," says Bacon, "have changed the whole face and state of things throughout the world, — the one in literature, another in warfare, and a third in navigation, — whence have followed innumerable changes, insomuch that no empire, no sect, no star,

seems to have exerted greater power and influence in human affairs than these mechanical inventions." But Bacon himself notices the curious fact, that the origin of all three, though recent in his day, is "obscure and inglorious." In fact, two of them were mere lucky accidents, made we know not positively where or by whom, certainly not by any one of scientific pretensions, as the legend which attributes the invention of gunpowder to Friar Bacon, or another monk, Berthold Schwarz, is wholly undeserving of credit. Printing was only a lucky thought which occurred almost simultaneously to two or three rude mechanics. There was nothing to put a person of scientific habits of mind upon the track of either invention, nothing to incite or guide his inquiry. As De Maistre says, the means of making a great discovery generally have no apparent connection with that discovery; and the illustration which he gives of this remark is furnished by Lord Bacon himself. If Archimedes and a dozen others equally eminent in science had been asked to invent an engine for beating down the ramparts of a city without coming within two or three hundred yards of them, they would have been entirely at fault, or would have thought only of some mode of improving the ancient catapult. But there comes along an obscure monk, who says, "Triturate and mix together sulphur, saltpetre, and charcoal"; — and the thing is done. So, also, if twenty scientific physicians had been required, a century ago, to invent some means of extirpating the small-pox, they could not have hit upon anything better than to ask the sovereigns of Europe to cause all their subjects to be inoculated by compulsion. Certainly, nothing short of divination could have sent them to the cows for a solution of the problem. Again, was it science that gave us Peruvian bark, ipecacuanha, mercury, or even sulphuric ether as an anæsthetic agent? Or was it rather such experimentation as that of an Indian doctor or conjurer, an African Obi-man, or an English merry-andrew? The only real question is, whether such discoveries are due to what is called a lucky chance, or to that merciful Providence which, in ways unseen by men, often overrules folly and selfishness, by rendering them instruments of good.

If we turn to the minor inventions which have aided the

accumulation of wealth and enhanced our material well-being, we still find that we are indebted for most of them either to a fortunate accident, or to the practical skill of some ingenious mechanic, whose school-education, perhaps, barely enabled him to write his name. After the workman has invented the machine or the process, science usually steps in, and, more or less successfully, explains the nature of the improvement, points out the physical laws that are concerned in it, and often uses it as a guide in its own future investigations. Sometimes it is unable to supply even this poor commentary, and the process continues to be empirical and inexplicable. Thus the mode of vulcanizing India-rubber, one of vast importance in the arts, offers an insoluble problem to the chemist. He cannot tell why heating and rubbing together caoutchouc and sulphur should produce an entirely new substance, — a *tertium quid*, having other and far more valuable properties than either of its ingredients. So in many of the processes for manufacturing iron, the means have no apparent connection with the end; the chemist measures the results, but cannot tell how or why they are produced. The eminent professors of science who lectured upon the results of the Great Exhibition in London in 1851, as we observed in this journal soon afterward,* seemed to manifest “an uneasy consciousness of the extent of the workman’s knowledge, — almost a doubt whether it was not for the workman to teach them, rather than for them to teach the workman.” Dr. Black, one of the greatest of modern chemists, remarks somewhere in his Lectures, that most of the chemical discoveries which have greatly benefited the arts are due to the manipulations of skilful operatives, rather than to what is called science or chemical philosophy. Many products of the useful arts were obtained by the ancients in as great perfection as by men of our own day; the article has profited nothing by the experience and the science of two thousand years. One of the lecturers just referred to says, “If Simon, the tanner of Joppa, had been able to send leather to the Exhibition, no doubt he would have carried off a medal.”

The inventors of the spinning-jenny were a Birmingham

* See North American Review for October, 1852, p. 363.

mechanic, a common laborer, and a barber's apprentice. Nearly all of the improvements in the steam-engine were made by uneducated mechanics, and they were constantly in advance of the science of their day. The most distinguished among them were Savery, a head miner; Newcomen, a blacksmith; Cawley, a glazier; and Humphrey Potter, an idle little boy. Watt's modifications of the machine have greater scientific pretensions; but he was only a half-taught instrument-maker when he contrived them, and many of them have now gone out of use, as practical men have found the engine which was employed before his day to be not only more simple, but more efficient and economical. Fitch, Fulton, and Hulls divide between them the honors of steam navigation, neither of them having any scientific attainments to boast of. But we need not multiply instances, a crowd of which were collected in the article on the Great Exhibition which has just been cited.

Mr. Buckle attributes to the progress of knowledge the diminution of "the two greatest evils known to mankind,"—religious persecution and the practice of war. Morality and religion, he affirms, have nursed and exasperated the former, and done nothing towards diminishing the latter; while the influence of intellectual discoveries has vanquished both. We join issue with him on all these points. Both the evils in question proceed from the passions rather than the judgment. Men need to be calmed and pacified, not to be instructed or argued with, in order to induce them to remain at peace or to tolerate difference of opinion. It is a sentiment rather than a conviction,—an instinctive recoil of our moral and humane feelings, instead of a perception of new truths,—which has stopped the practice of torture, whether inflicted for political or ecclesiastical purposes. The rack and the thumb-screw have gone out of use, because the increased humanity of these later times shuddered at the very sight of them; and the bitterness of religious disputes has in great measure ceased, because men now think less of the dogmas, and more of the practice, of Christianity. For a century after the Reformation, religious persecution was rife, as the angry feelings consequent on that great schism raged and were imbibed by

the political changes that grew out of it, and because men were cruel. As the strife cooled, and experience showed the inutility of coercive measures, the voice of humanity and the mild precepts of the Gospel were again heard and respected. Manners were softened, and men ceased to persecute one another under the same impulses and feelings which led them to improve prisons, erect almshouses and hospitals, abolish the slave-trade, and send out missions to the heathen. Mere science, the mere progress of discovery and invention, contributed as little to this result as to the first promulgation of Christianity. It is impossible to see how it should have had any effect on either.

As to the practice of war, Mr. Buckle hazarded his assertion of its rapid decline a little too soon. Writing in 1855, he says: "It is highly characteristic of the actual condition of society, that a peace of unexampled length should have been broken, not as former peaces were broken, by a quarrel between two civilized nations, but by the encroachments of the uncivilized Russians on the still more uncivilized Turks." This is an ingenious statement of the case, made to conceal the fact, known to all the world, that Turkey was only a nominal partner in the strife, only a pretext for it, and that the real contest was between France and England, two of the most civilized nations on the earth, on the one hand, and Russia on the other, the prize for the victor being the possession of Constantinople. "Russia is a warlike country," we are told, "not because the inhabitants are immoral, but because they are un-intellectual." But the inhabitants of Russia, taken as a mass, have no more voice or influence in determining between war and peace, than they have in guiding the course of the planets. The sovereign, the nobility, and the higher officers of the army, made the war; and these are as civilized, as enlightened, as "intellectual," — to copy our author's pet phrase, — as any court in Europe.

And as to the decline of war, what has been the history of the half-dozen years which have followed what our author calls the forty years of peace, — a peace broken only by a war in Afghanistan, one in Scinde, one in China, one in Mexico, one in Schleswig and Holstein, one in Hungary, two in the

North of Italy, one in Rome, and about half a dozen revolutions, attended with more or less bloodshed, in the most civilized nations of Europe. The last six years have witnessed the Crimean war, the war of the Indian mutiny, a second war in China, the war of France, Sardinia, and Austria in Lombardy, Garibaldi's war in Sicily, Sardinia's conquest of Naples and the Roman provinces, and now the fearful civil war which rages in our own unhappy country. And at the present moment, also, France and England are vying with each other in preparations for war on the largest scale, and a terrible contest is impending in Hungary and Venetia. The decline of war! Search the annals of the world, and we doubt if a period of equal length can be found which has witnessed so terrible an outbreak of the warlike spirit as that which has characterized the last fifteen years. Terrible as the contest was which was terminated by the treaties of Vienna in 1815, it was, in the main, a struggle of all Europe against one man.

Mr. Buckle attributes his fancied decay of the desire for war to the march of intellect generally, but specially to the invention of gunpowder, the discoveries made by political economy, and the improved means of locomotion. Now, gunpowder came into general use about four centuries ago, and during this time it may well be doubted if there have been fewer wars, or less bloodshed, than in the four centuries immediately preceding. Economical science has not *discovered* a single truth which tends to increase the desire for peace; it has merely furnished some additional illustrations of the costliness of war, which would have more effect if nations fought from motives of interest, and not from considerations of honor, jealousy, anger, revenge, and other turbulent passions. No further proof was needed that war is always a costly, often a ruinous, expedient. The quarrels of nations, like those of individuals, grow out of their ill-regulated passions; and these can be checked and restrained, not by considerations addressed to the intellect, but, if at all, by the teachings of morality and religion. These last have greatly humanized war; they have ameliorated the fate of captives, forbidden the use of poison and other savage expedients, protected the property and lives of non-combatants on land, and

are on the point of putting an end to privateering, which is only another name for piracy, at sea. And this is all that is possible, until mankind have become, not wiser, but better. Never was a war more obviously and ruinously destructive of all public and private interests than that into which the Southern States of this Union have blindly plunged. But to oppose the madness of Secession by considerations drawn from political economy or constitutional law is like preaching to a tornado. The tempest must blow itself out. Only when the wind has lulled can the voice of reason or the whispers of conscience be heard.

But the rambling and desultory character of Mr. Buckle's work has protracted the task of following him, and our remarks are already extended to undue length, before a tithe of his errors and fallacies have been exposed and refuted. We have dwelt mainly upon the principles on which his History is based, as an attempt to trace their application in detail would far exceed our limits. And yet the absurdity of the conclusions to which he is led furnishes, perhaps, the best proof of the erroneousness of his method and the falsity of his premises. The whole of his second volume is devoted to an elaborate examination of the history of Spain and of Scotland, in the hope of proving that superstition is always rife where volcanoes and earthquakes are common,—that, in fact, it owes its origin to these and other startling phenomena of nature, and that it can never be exposed and put down by the employment of the deductive method of reasoning. This is rather a meagre result of an inquiry extending so far, and conducted with so much pretension. And, as a doctrine, it is simply ludicrous. Never did a poor pedant, bitten with the love of theorizing, ride so far afield, in order to bring home a paltry and absurd conclusion. We should almost suspect the sanity of one who seriously entertained it. If it were true, the inhabitants of Iceland, a country surpassing every other on the globe in the grandeur and striking character of its physical phenomena, made inaccessible by enormous ice-fields for most of the year, often shaken by terrible earthquakes, mailed in sheets of lava and studded with active volcanoes, ought to be the most superstitious race on earth. Unfortunately for Mr.

Buckle's theory, they happen to be a peculiarly sober, industrious, intellectual, well-educated, Christian people, — certainly much less superstitious than the inhabitants of the vast sun-scorched plains of Hindostan, where nature offers only a wearisome monotony to the beholder. Again, Scotland is troubled neither by earthquakes nor volcanoes. True, it has mists, and mountains, and severe winters, in which Mr. Buckle's theory, *faute de mieux*, takes refuge; but its near neighbor, Norway, has precisely the same characteristics, and the Norwegians are not peculiarly superstitious.

Then the elaborate attempt to prove that science in Scotland has made an excessive use of the deductive method is an utter failure. Adam Smith has not made half as much use of this kind of reasoning as Malthus and Ricardo; indeed, it is chiefly owing to the latter, an English Jew, that English political economy has become a deductive science. As a speculatist, Hume makes more use of facts and less of abstract reasoning than Hobbes; the latter is a system-maker, and the former a destroyer of system. Leslie, as a writer on heat, relies much more on experimentation and induction than Fourier. In chemistry, as compared with Dalton, Lavoisier, or Davy, Dr. Black must be regarded as eminently an inductive philosopher.

But enough of details, in which the task of exposing Mr. Buckle's blunders would be endless. We have spoken with freedom and severity of his work, because its tone and tendency are bad. With considerable merits of literary execution, it is characterized in a remarkable degree by arrogant pretensions, a dogmatic spirit, coarseness of expression, and a contemptuous disregard of the feelings and opinions which a vast majority of the author's countrymen hold sacred. Under the guise of a history, its only aim is to teach the preconceived conclusions of a false and debasing philosophy. If these conclusions were sound, man would be an animated machine, not accountable for his actions, and without either hopes or fears extending beyond this brief sphere of earthly existence. Rashness of assertion and inconsequence of reasoning are what we expected to find in the statement and defence of such doctrines; and in this expectation we have not been disappointed.